

Is enameled copper wire a good choice?

Enameled copper wire is a poor choice, both because of insulation issues and because of the small surface area and thus low capacitance. I have seen very good results by using a plastic straw filled with a conductive fluid (e.g., salt water) as one plate and the water outside (also conductive) as the other plate.

What is enameled wire?

Enameled wires are copper or aluminium wires coated with a thin layer of enamel insulation. This insulation not only protects the wire but also provides electrical insulation. The enamel coating allows engineers to wind the wire tightly without the risk of short circuits, making it ideal for electromagnetic applications. 1.

Why are enameled wires important?

Ensure that the enameled wire meets industry standards and regulations for safety and performance. In conclusion, enameled wires, often referred to as magnet wires, enameled copper wires, enameled magnet wires, copper winding wires, or enameled strips, are indispensable tools for rational engineers working on electromagnetic solutions.

Can enamelled copper wire be pinhole free?

Another problem is that the lacquer on enamelled copper wire is not guaranteed pinhole free, i.e. the insulation is likely not perfect. In winding a transformer or inductor this doesn't matter, since the pinholes are unlikely to coincide and cause a shorted turn.

Is Q-Dope sold for enameling an entire wire?

No, it isn't "sold for that purpose". Q-dope is for high voltage NODES. That would be the exposed connections between two endpoints on a conductor in an HV circuit. It is made for sealing those exposed nodes. NOT for "enameling an entire wire". wonder if that would be any good. somebody had done it in an easy and effective way, I might be tempted.

How does a capacitance sensor work?

The distance between them is 0.5 cm, they are submerged in a water tank made out of acrylic. As the fluid level arises capacitance should change, the "sensor" is connected to a IC555 timer which is used to generate a square wave with frequency inversely proportional to the capacitance.

Short quantities of high temp enameled mag wire are available. Then all you have to insulate with glypt or q-dope are the nodes which should already be on your list of ...

Instead of using magnet wire, I use 30 awg winding wire for point-to-point welding. Easy to peel off. For the power cord, I use 22 awg cable. To make the bus bar, I removed all insulation and solder from every point on the path. 30awg is too thick for the prototype data bus, and the wires interfere with each other and quickly

become unmanageable.

Electronics: Using enameled copper wire as a capacitor for measuring water level in a tank? -

The article proposes the study of a device for measuring the eccentricity of enameled wire on a continuous line. It exploits capacitance measurements to determine the ...

Big transmitting loops need variable capacitors, some articles about those describe ways of making variable capacitors. The real issue here is that for a few things, especially high power use, you ...

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Each time the wire passes through the core counts as a turn. Space the turns so that they spread over about 80% of the circumference of the toroid. Cut the wire so that the tails from the toroid are about 1.5cm long. Using a hot soldering iron, tin the enamelled copper wire. The enamel will melt in a bead of solder on your iron. If your ...

0.063mm, 42 AWG Enamelled Copper Magnet Wire - Solderable Guitar Pickup Wire (1kg) Home; Enamelled Copper Wire; Guitar Pickup Wire; 0.063mm, 42 AWG Enamelled Copper Magnet Wire - Solderable Guitar Pickup Wire (1kg) ...

Wire cutters; If you want to make the same sculpture that I am using as an example, you will need: A 555 timer ; A 4017 decade counter ; A 10 uF capacitor ; 9 rectangular LEDs ; 2 ...

We use enameled wire as a bobbin thread to yield textile capacitors with high quality and consistency. As a consequence, we are able to leverage the precision and expressiveness of projected mutual capacitance for textile electronics, even when size is limited. Harnessing the assets of machine embroidery, we implement and analyze five distinct ...

I'm not sure if I'm going to try making my own enameled wire, but if somebody had done it in an easy and effective way, I might be tempted. The ideas I had so far are not "easy and effective";. ... home made fabrication for resistor, capacitor, diode (RCD) circuits. dragon; Mar 29, 2023; Off-Topic Members Lounge; Apr 4, 2023; daven; Replies 9 ...

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